

FIGURE 1A

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FIGURE 1B

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AUG GCT GGC GGA GGC TGG GGC GGC CTG GGC TGT TAC TIG GAG TTC CTG AAG AAG GAG GAG 120  
 M A G G A W G R L A C Y L E F L K K E E L K E F Q L L L A N K A H S R S S S G E 40  
 ACA GGC GCT GAG GGA GAG AAG AGT GGC AIG GAG GTC GGC TGG TAC CTG GTC GCT GAG 240  
 T P A Q P E K T S G M E V A S Y L L V A Q Y G E Q R A W D L A L H T W E Q M G L R 80  
 TCA CTG TGC GGC GGA GGC GAG GGA GGC GTC TCT GCT TCA TCT GTC TAC ACC CCA 360  
 S L C A Q A Q E G A G H S P S F P Y S P S E P H L G S P S Q P T S T A V L M P W 120  
 ATC GAT GAA TIG GGC GGC GGC TGC ACC GAG GTC TCA GAG AAG GAT TIG TCA GAG GTC 480  
 I H E L P A G C T Q G S E R R V L R Q L P D T S G R R W R E I S A S L L Y Q A L 160  
 GGA ACC TGC GGA GAT GAT GAG TCT CCA ACC GAG GAG TCA GGC AHC GGC GGC ACA TCC ACA 600  
 P S S P D H E S P S Q E S P N A P T S T A V L G S W G S P P Q P S L A P R E Q E 200  
 GCT GCT GGC ACC GAA TGG GCT CTG GAT GAA AAG TCA GGA ATT TAC TAC ACA GAA ATT ACA 720  
 A P G T Q W P L D E T S G I Y Y T E I R E R E R E K S E K G R P P W A A V V G T 240  
 GCT GCA GGC GGC ACC ACC CTA GGC GGC GGC CCA TGG GAG GCT TCT GIG ACA 840  
 P P Q A H T S L Q P H H P W E P S V R E S L C S T W P W K N E D F N Q K E T Q \* 280  
 CTG CTA CTT CTA GAA CTA CTA CTA CTA CTA CTA CTA CTA CTA CTA CTA CTA CTA CTA 960  
 L L L L Q R A P C P H P R S Q D P L V K R S W P D Y V E E N R G H L I E I R D L F G P 320  
 GCT CTG GAT ACC GAA GAA GCT GCT AIA GIC AIA CTG GAG GGC GCT GCT GAA ATT GGC AAG 1080  
 G L D T Q E P R I V I L O G A A G I G K S T L A R Q V K E A W G R G Q L Y G D R 360  
 P-loop (Walker A)  
 TTC GAG GAT GTC TTC TAC TTC ACC TGC AGA GAG CTG GGC GAG TGC AAG GIG GIG AGT CTC 1200  
 F Q H V F Y F F S C R E L A Q S K V S L A E L I G K G C D G T A T P A P I R Q I L S 400  
 AAG GCA GAG GGC GTC TTC ATC CTC GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 1320  
 R P E R L L F I L D G V D E P G W V L Q E P S S E L C L H W S Q P Q P A D A L L 440  
 Walker B  
 GGC AGT TIG CTG GGC AAA ACT AIA CTT GGC GAG GAA TGC TTC CTG AIC AAG GCT GGC ACC 1440  
 G S L L G K T I L P E A S F L I T A R T T A L Q N L I P S L E Q A R W V E V L G 480  
 TTC TGC TGC ACC AAG AAG GAT TAT TAC TAC TAC TAC TAC TAC TAC TAC TAC TAC TAC 1560  
 F S E S S R K E Y F Y R Y F T D E R Q A I R A F R L V K S N K E L W A L C L V P 520  
 TGG GTC TGC TGC CTG GGC TGC ACT TGC CTG AIG GAG GGC AAG GAA CCA CCA CCA CCA 1680  
 W V S W L A C T C L M Q M K R K E K L T L T S K T T T T L C L H Y A Q A L Q 560  
 GCT GAG GGA TIG GGA GGC GGC CTG AAG GAT TGC TCT CTG GCT GCT GAG GGC AIC TGG 1800  
 A Q P L G P Q L R D L C S L A A E G I W Q K K T L F S P D D L R K H G L D G A I 600  
 AIC TGC ACC TTC TIG AAG AIG GAT ATT CTA GAG GAG GGC ACC AIC GCT GIG TAC ACC 1920  
 I S T F L K M G I L Q E H P I P L S Y S F I H L C F Q E F F A A M S Y V L E D E 640  
 AAG GGC GAT GAT GAT TCT AAT TGC AIC AIA GAT TIG GAA AAG GAT CTA GAA CCA TAT 2040  
 K G R G K H S N C I I D L E K T L E A Y G I H G L F G A S T T R F L L G L L S D 680  
 GAG GGC GAG AAG AAG GAG AIC TTT GCT TGC CTG TCT GAG GGC AAG AIC CTG 2160  
 E G E R E M E N I F H C R L S Q G R N L M Q W V P S L Q L L L Q P H S L E S L H 720  
 TGC TIG TAC GAG ACT GGC AIC AAG TGC CTG AIC GAA GIG AIG GGC GAT TTC GAA GAA 2280  
 C L Y E T R N K T F L T Q V M A H F E E M G M C V E T D M E L L V C T F C I K F 760  
 ACC GCT GIG AAG AAG GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 2400  
 S R H V K K L Q L I E G R Q H R S T W S P T M V V L F R W V P V T D A Y W Q I L 800  
 TTC TGC GTC CTC AAG GTC ACC AAG AAG CTG AAG GAG GAG GAT CTA AGT GCA AAG TGC CTG 2520  
 F S V L K V T R N L K E L S G N S L S H S A V K S L C K T L R R P R C L L E 840  
 ACC CTG GGC TIG GCT TGT GGC CTC AAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 2640  
 T L R L A G C G L T A E D C K D L A E F G L R A N Q T L T E L D L S F N L T D A 880  
 GGA GGC AAG GAT TGC GAG AAG CTG AAG GGC ACC TGC AAG CTA GAG GGA CTG GGC 2760  
 G A K H L C Q R L R Q P S C K L Q R L Q L V S C G L L T S D C C Q D L A S V L S A 920  
 ACC GGC CTG AAG GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 2880  
 S P S L K E L D L Q Q N N L D D V G V R L L C E G L R H P A C K L I R L G L D Q 960  
 ACA ACT CTG AGT GAT AAG GGC GGC GGC CTG GGC GGC GGC GGC GGC GGC GGC GGC GGC 3000  
 T T L S D E M R Q E L R A L E Q E K P Q L L I F S R R K P S V M T P T E G L D T 1000  
 GGA GAG AAG AGT AAT ACC ACA TGC TCA CTA AAG GGC GGC AAG CTA CTA GAG AAG GGC 3120  
 G E M S N S T S S L K R Q R L G S E R A A S H V A Q A N L K L L D V S K I F P I 1040  
 GCT GAG AAT GGA GAG GAA ACC TGC GGA GAG GGA GGC GGC GGC GGC GGC GGC GGC GGC 3240  
 A E I A E E S S P E V V P V E L L C V P T C T G C T C T C A G G G C G C G A T A G A G C T T T G G 1080  
 GCT GGC GGC GCT GIG GCT ACT GAG GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 3360  
 G P T G P V A T E V V D K E K N L Y R V H F P V A G S Y R W P N T G L C F V M R 1120  
 GAA GGC GGC ACC GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 3480  
 E A V T V E I E F C V W D Q F L G E I N P Q H S W M V A G P L L D I K A E P G A 4160  
 GIG GAA GCT GIG GAG GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 3600  
 V E A V H L P H F V A L Q G G H V D T S L F Q M A H F K E E G M L L E K P A R V 1200  
 GAG GTC GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 3720  
 E L H H I V L E N P S F S P L G V L L K M I H N A L R F I P V T S V V L L Y H R 1240  
 GIC GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT GAT 3840  
 V H P E E V T F H L Y L I P S D C S I R K A I D D L E M K F Q F V R I H K P P P 1280  
 CTG ACC CTA CTT TAT GGC GCT TGT GAT TAC ACT GIG TCT GCT GCT TCA GGC AIG CTG 3960  
 L T P L Y M G C R Y T V S G S G S G M L E I L P K E L E L C Y R S P G E D Q L F 1320  
 TGG GAG TIG TAC GTC GGC GGC TIG GGA TCA GGC AIC AAG GGC CTG GGA GIG AAG GAG AAG 4080  
 S E F Y V G H L G S G I R L Q V K D K K D E T L V W E A L V K P G D L M P A T T 1360  
 CTG AIC GCT GGA GGC AIA GGC TCA GCT TCA GCT GAT GAT GAT GAT GAT GAT GAT GAT GAT 4200  
 L I P P A R I A V P S P L D A P Q L L H F V D Q Y R E Q L I A R V T S V E V V L 1400  
 GCA AAG CTG GAT GGA GGC GGC ACC GGC GGC TAC GAG AAG GIG GAT GAT GAT GAT GAT 4320  
 D K L H G Q Y E S Q E Q Y E R V L A E N T R P S Q M R K L F S L S Q S W D R K C 1440  
 AAA GAT GGA CTC TAC GAA GGC CTG AAG GAG ACC GAT GCT GAT CTC ATT AIG GAA CTC TGG 4422  
 K D G L Y Q A L K E T H P H L I M E L W E K G S K K G L L P L S S \* 1473

FIGURE 1C

| LexA          | B42   | Leu+ | Leu- | LacZ                                    |
|---------------|---|------|------|---|
| NAC-CARD      | Casp-9 (CARD)<br>Casp-8 (Pro)<br>Apaf-1 (-WD)<br>Bcl-XL (-TM)<br>Bcl-2 (-TM)<br>Bax (-TM)<br>vRas |      |      | ++<br>+/-<br>++<br>+/-<br>+/-<br>-<br>- |
| Casp-9 (CARD) | NAC-CARD<br>Apaf-1 (-WD)<br>vRas  |      |      | ++<br>++<br>-                           |
| Casp-8 (Pro)  | NAC-CARD<br>FADD<br>vRas  |      |      | ++++<br>-<br>-                          |
| Apaf-1 (-WD)  | NAC-CARD<br>Casp-9 (CARD)<br>vRas   |      |      | +<br>++++<br>-                          |
| Bcl-XL (-TM)  | NAC-CARD<br>Bcl-XL (-TM)<br>Apaf-1 (-WD)<br>vRas  |      |      | +++<br>+++<br>+++<br>-                  |
| Bax           | NAC-CARD<br>Bax (-TM)<br>Bcl-2 (-TM)<br>vRas  |      |      | +/-<br>++++<br>+<br>-                   |
| Bcl-2 (-TM)   | NAC-CARD<br>Bcl-2 (-TM)<br>Bax (-TM)<br>vRas  |      |      | ++<br>+++<br>+++<br>-                   |

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FIGURE 3

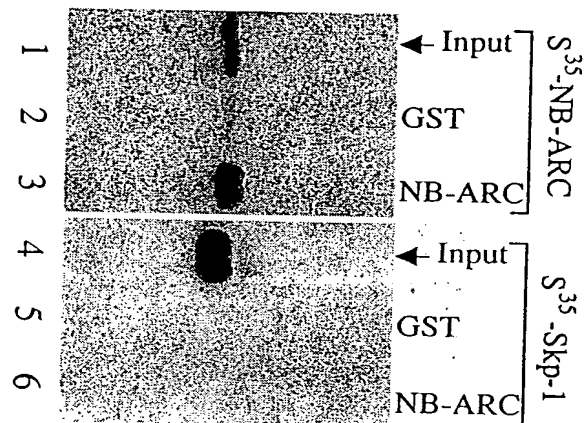


FIGURE 4